

**Base Realignment and Closure
Program Management Office West
1230 Columbia Street, Suite 1100
San Diego, CA 92101**

**CONTRACT NO. N68711-98-D-5713
CTO No. 0084**

**FINAL
TRANSPORTATION AND DISPOSAL PLAN
Revision 1
April 20, 2005
PCB HOT SPOT SOIL EXCAVATION SITE
PARCELS E AND E-2, HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA**

DCN: FWSD-RAC-04-1781

Prepared by:



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TETRA TECH FW, INC.

TRANSMITTAL/DELIVERABLE RECEIPT

Contract No. N68711-98-D-5713 (RAC III)


Document Control No. 04-1781-1

File Code: 5.0

TO: Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Ms. Beatrice Appling, 02R1.BA
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San Diego, CA 92132-5190

DATE: 04/20/05
CTO: 0084
LOCATION: Hunters Point Shipyard

FROM:


Neil Hart, Program Manager

DESCRIPTION: Final Transportation and Disposal Plan, Rev. 1, 04/20/05
PCB Hot Spots Soil Excavation Site Parcel E, Hunters Point Shipyard, San Francisco, California

TYPE: ☐ Contract/Deliverable ☒ CTO Deliverable ☐ Notification
☐ Other

VERSION: Final REVISION #: 1
(e.g. Draft, Draft Final, Final, etc.)

ADMIN RECORD: Yes ☒ No ☐ Category ☐ Confidential ☐
(PM to Identify)

SCHEDULED DELIVERY DATE: 04/20/05 ACTUAL DELIVERY DATE: 04/20/05

NUMBER OF COPIES SUBMITTED: 0/7C/5E Copy of SAP to N. Ancog ☐

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TETRA TECH FW, INC.

April 20, 2005
FWSD-RAC-04-1781
5.0

Base Realignment and Closure
Program Management Office West
Attn: Mr. Mark Walden
1230 Columbia Street, Suite 1100
San Diego, CA 92101

**SUBJECT: FINAL TRANSPORTATION AND DISPOSAL PLAN REVISION 1 FOR
PCB HOT SPOT SOIL EXCAVATION SITE, PARCEL E AND E-2,
HUNTERS POINT SHIPYARD, SAN FRANCISCO, CALIFORNIA**

Reference: Contract N68711-98-D-5713, Environmental Remedial Action Contract
For Sites Southern California, Arizona, New Mexico, and Southern Nevada

Dear Mr. Walden

Enclosed is the Final Transportation and Disposal Plan Revision 1 for PCB Hot Spot Soil
Excavation Site, Parcel E and E-2, Hunters Point Shipyard, San Francisco, California. If you
have any questions or require additional information, please contact me at (619) 471-3502.

Sincerely,

Luis Rivero
Project Manager

Enclosures: Final Transportation and Disposal Plan Revision 1 for PCB Hot Spot Soil
Excavation Site, Parcel E and E-2

TRANSPORTATION AND DISPOSAL PLAN
PCB HOT SPOT SOIL EXCAVATION SITE
PARCEL E
REVISION 0

DATED 18 MAY 2004

IS ENTERED IN THE DATABASE AND FILED AT
ADMINISTRATIVE RECORD NO. **N00217.004009**

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Figure 2-1	Off-site Traffic Route Map

ABBREVIATIONS AND ACRONYMS

Caltrans	California Department of Transportation
CCR	California Code of Regulations
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CQC	Contractor Quality Control
^{137}Cs	cesium-137
CSO	Caretaker Site Office
DON	Department of the Navy
DOT	Department of Transportation
EPA	U.S. Environmental Protection Agency
HAZMAT	Hazardous Material
HPS	Hunters Point Shipyard
IR	Installation Restoration
LDR	Land Disposal Restriction
LLMW	low-level mixed waste
LLRW	low-level radioactive waste
NAVSEA	Naval Sea Systems Command
NFECWS	Southwest Division, Naval Facilities Engineering Command
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyls
PPE	personal protective equipment
^{226}Ra	radium-226
RCRA	Resource Conservation and Recovery Act
ROICC	Resident Officer in Charge of Construction
RPM	Remedial Project Manager
SARA	Superfund Amendments and Reauthorization Act
SHSP	Site-specific Health and Safety Plan
SHSS	Site Health and Safety Specialist
^{90}Sr	strontium-90
SWDIV	Southwest Division Naval Facilities Engineering Command

ABBREVIATIONS AND ACRONYMS

(Continued)

TCRA	time-critical removal action
Triple A	Triple A Machine Shop, Inc.
TSCA	Toxic Substances Control Act
TtFW	Tetra Tech FW, Inc.
UHC	underlying hazardous constituent

1.0 INTRODUCTION

1.1 THE TRANSPORT AND DISPOSAL PLAN

This Transportation and Disposal Plan addresses project-specific information for vehicular traffic control related to the loading and off-site transportation and disposal of wastes. Wastes included are contaminated soil, refuse and debris, wastewater, and used personal protection equipment (PPE), generated during the time-critical removal action (TCRA) for the polychlorinated biphenyl (PCB) hot spot soil excavation site (PCB hot spot), located primarily in Parcel E-2, with a small section in Parcel E at Hunters Point Shipyard (HPS), San Francisco, California. This plan presents environmental mitigation procedures for hazardous substances that will be transported from the site, emergency response procedures, transporter licensing and certification requirements, health and safety compliance, and base regulations. In addition, the locations of major points of ingress and egress at the site and major on-site and off-site roads that will be used by project personnel vehicles and for material transportation from the site will be addressed.

Disposal of low-level radioactive waste (LLRW) and low-level mixed waste (LLMW) will be conducted by the Army and is therefore not covered under this Transportation and Disposal Plan.

1.2 SITE DESCRIPTION

HPS is located in the City and County of San Francisco, California, on a long promontory in the southeastern part of San Francisco that extends east into San Francisco Bay (Bay). HPS encompasses 848 acres, including 416 acres on land. The land portion of HPS was purchased by the Department of the Navy (DON) in 1939 and leased to Bethlehem Steel Corporation. At the start of World War II in 1941, the DON took possession of the property and operated it as a shipbuilding, repair, and maintenance facility until 1974. The DON deactivated HPS in 1974. From 1976 to 1986, the DON leased HPS to Triple A Machine Shop, Inc. (Triple A), a private ship repair company. In 1986, Triple A ceased operations at HPS and the DON resumed occupancy through 1989.

Because previous shipyard operations left hazardous materials on-site, HPS was placed on the National Priorities List in 1989 as a Superfund site pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. HPS then came under the administrative jurisdiction of the Treasure Island Naval Station in April 1990.

In 1991, HPS was placed on the Navy's Base Realignment and Closure list and its mission as a Navy shipyard ended in April 1994. Closure activities at HPS involve environmental remediation activities and making the property available for non-defense use. On March 31, 1994, control of

HPS was transferred from the Treasure Island Naval Station to the Naval Facilities Engineering Command, Western Division (now Engineering Field Activity West) in San Bruno, California. In October 1999, Southwest Division, Naval Facilities Engineering Command (NFECSW) assumed management of HPS.

HPS was divided into six parcels, Parcels A through F. In November 2004, Parcel A was transferred to the City and County of San Francisco. In 2004, the DON subdivided Parcel E, creating Parcel E-2 in order to move the Industrial Landfill forward under the CERCLA process. Parcel E-2, 47 acres in size, encompasses former portions of Parcel E, including IR-01/21, the Panhandle Area, parts of IR-02 Northwest and the area east of IR-01/21 that does not have an Installation Restoration (IR) site designation. Parcel E, a majority of which is unpaved and formerly used for industrial support, now occupies 138 acres along the upland shoreline in the southwestern portion of HPS.

The activities governed by this TCRA deal specifically with PCB hot spot, located primarily within Parcel E-2, with a small section in Parcel E, as shown in Figure 1-1. PCB hot spot covers approximately 4.1 acres along the shoreline. The DON created this land area by filling in the bay margin, largely with soils derived from serpentinite bedrock quarried from the Hunters Point peninsula. After the area was filled, the area to the north of PCB hot spot was used as an industrial waste landfill. The suspected source of PCBs is disposal of waste oils that contained PCBs.

Radioactive contamination was introduced to the site through the disposition of radioluminescent devices containing radium-226 (^{226}Ra) and strontium-90 (^{90}Sr) with other shipyard fill material. This was a common practice throughout the military and private industry from the 1940s to the 1960s. In addition, cesium-137 (^{137}Cs) and ^{90}Sr may be encountered in contaminated sandblast grit. HPS utilized sandblast grit to decontaminate ships that were involved in atomic weapons testing and may have disposed of some of the grit at PCB hot spot area (NAVSEA, 2004).

Along the western portion of PCB hot spot, an 800-foot-long sheet pile barrier was constructed between the landfill area and the shoreline of the Bay in 1996. This wall, along with a groundwater extraction system installed approximately 20 feet to the east of the sheet pile barrier, is designed to intercept Bay Mud and control the movement of groundwater, thereby limiting the amount of hazardous substances that would otherwise migrate toward the Bay.

2.0 SCOPE OF WORK

2.1 THE CONTRACT

TPA-CKY has been awarded a contract for loading wastes generated from the PCB hot spot TCRA and for hauling these wastes to an appropriate disposal facility. This Transportation and Disposal Plan specifically addresses TPA-CKY's responsibilities for the transportation and delivery of contaminated soil, refuse and debris, wastewater, used PPE, and other wastes associated with the TCRA for PCB hot spot to the appropriate disposal facilities. Soil excavation, stockpiling, on-site management, waste characterization, and profiling are being conducted by Tetra Tech FW, Inc. (TtFW) under a separate contract with the DON (Contract Number (No.) N68711-93-D5713 and Contract Task Order (CTO) No. 0084). LLRW and LLMW are not part of the scope of this plan. LLRW and LLMW will be properly stored on site pending packaging, transportation, and disposal by an Army contractor in compliance with the Department of the Navy Low-level Radioactive Waste Disposal Program.

TPA-CKY will load and transport for disposal wastes generated from the PCB hot spot TCRA. Depending on the waste characterization analytical results, a waste profile will be prepared by TtFW for the excavated and stockpiled soil. Depending on the waste classification [for instance, Toxic Substances Control Act (TSCA) and/or Resource Conservation and Recovery Act (RCRA) regulated wastes], the soil may be hauled to different disposal facilities, including the Waste Management Incorporated, Kettleman Hills hazardous waste landfill facility in Kettleman City, California, and/or the US Ecology hazardous waste landfill in Beatty, Nevada. An estimated 20,000 cubic yards of soil will require loading and hauling. Work is anticipated to commence in May 2005 and continue through October 2005.

2.2 CONTRACTOR REQUIREMENTS

TPA-CKY shall supply all labor, equipment and materials necessary to load, transport and dispose of all wastes. TPA-CKY shall be required to provide the appropriate means for transferring or loading the wastes into the transportation vehicle. Care shall be taken to prevent spillage or leaks during the transfer operation. TPA-CKY shall have sufficient spill equipment on hand during the transfer process. TPA-CKY shall observe and be on hand throughout the transfer operations to ensure safe and sound transfer.

TPA-CKY shall provide the 24-hour emergency contact during transportation. The contractor may employ one or more transportation subcontractors. The transporter shall have all appropriate licenses, medical certifications, permits, Hazardous Material (HAZMAT) Security Plan and registrations (including but not limited to a Department of Toxic Substances Control hazardous waste transporter registration and an U.S. Environmental Protection Agency (EPA) identification

number) for hauling the waste. An on-site truck scale, belonging to the Golden Gate Railroad Museum, will be made available to TPA-CKY throughout the duration of this project. The truck scale is located at Building 412 (adjacent to Building 401), as illustrated in Figure 1-1. Although the scale is not certified, it will be used by all trucks leaving the site to ensure that the Department of Transportation (DOT) weight restrictions are not exceeded. It will be the responsibility of TPA-CKY to document truck weights prior to trucks exiting from HPS. Prior to leaving HPS, the trucks will also be required to proceed through the on-site truck gate monitor on 6th Avenue (see Section 3.5.4 and Figure 1-1) to be screened for any potential radioactive material.

TPA-CKY field personnel and truck drivers are required to restrict their work to stockpile areas and other areas identified as radiologically non-impacted as identified in Figure 1-1. Under no circumstances are TPA-CKY personnel or truck drivers allowed to enter radiologically impacted areas.

Truck drivers are encouraged to remain in their cabs for the duration of the time the truck is on site unless doing so would compromise the driver's safety. Although it is not anticipated, if falling objects become a risk to the driver in the truck cab, TPA-CKY will ensure that all truck cabs have a Falling Object Protection System (FOPS) or a cab protector to make the cab a safe environment during loading procedures.

Drivers will be required to sign a certification (Attachment 1) acknowledging their understanding of certain policies and procedures concerning site logistics, and acknowledging that they meet the appropriate qualifications for transportation of the waste.

3.0 TRANSPORTATION/CIRCULATION

This section provides guidelines and addresses measures for vehicular traffic control during the loading and transportation of stockpiled waste materials from PCB hot spot. Included is a discussion of the locations of major ingress and egress at HPS, the effects of construction activities on existing traffic routes, and major on-site and off-site roads that are to be used for waste transporters. This section also discusses major roadways within and outside the vicinity of HPS, circulation patterns, and volume/numbers of various vehicles that are expected during specific project activities.

3.1 ANALYSIS OF POTENTIAL IMPACTS

Traffic associated with waste hauling activities, such as truck queuing, staging, loading, and leaving the site during implementation of the TCRA, will require coordination around other construction-related traffic consisting of trucks delivering equipment and materials, large equipment mobilization, and personnel and support vehicles. TPA-CKY will plan and schedule waste hauling activities with TtFW and the DON in advance to minimize impacts on traffic in the area. The project team will coordinate all construction activities that may generate traffic with the Caretaker Site Office (CSO) and the Resident Officer in Charge of Construction (ROICC) in order to avoid conflicts with other activities being performed concurrently at HPS. A schedule of proposed truck traffic locations and times will be reviewed with the CSO and ROICC during weekly Contractor Quality Control (CQC) meetings, which are typically held in the TtFW trailer on Tuesdays at 9:30 a.m.

3.2 TRAFFIC HAUL ROUTE

During construction activities, waste hauling trucks (anticipated maximum of 30 per day) will access HPS at the main gate (Innes Avenue) and proceed to the soil stockpile area within the fenced portion of Parcel E and E-2 via Donahue Street to Galvez Avenue, to Robinson Street, to Fischer Avenue, to Spear Avenue (Figure 1-1). Once loaded and appropriately covered and decontaminated per Section 3.5.1, trucks will return to the main gate via the same route.

Outside the main gate, there is only one approved route to US 101. The only route allowed is to leave the HPS main gate and turn right on Innes Avenue, bear right at the fenced vacant lot at Innes Avenue, which becomes Hunters Point Boulevard (which again changes to Evans Avenue at the PG&E power plant). Follow Evans Avenue across Third Street to Cesar Chavez, and turn left and follow Cesar Chavez to the US 101 on-ramp (Figure 2-1).

Per request by the DON, trucks will not be allowed to enter the base before 0730 hours or leave after 1700 hours. Continuing construction of a light rail line along Third Street will be evaluated

for possible impacts when transportation of materials begins. As of September 2004, Third Street has been closed to truck traffic. Absolutely no trucks will be allowed to stage, queue, park, or idle outside the fenced area of Parcel E or E-2. While there is ample room inside the fenced area to queue-up, truck arrivals will need to be scheduled and coordinated closely to prevent trucks from idling outside the gate. No trucks will be allowed to stage along any public street.

3.3 TRAFFIC SAFETY MEASURES

In order to expedite the passage of traffic through or around the work area and within HPS, TPA-CKY will install and maintain the necessary signs, lights, temporary railings, barricades, and other facilities for the convenience and direction of facility personnel and tenant traffic, as well as to prevent potentially hazardous traffic conditions. If necessary, during periods of waste hauling, TPA-CKY will furnish competent flagmen whose sole duties will be to direct the movement of facility traffic through or around the work area and to give adequate warning to facility personnel and tenants of any dangerous conditions to be encountered. Trucks will be required to drive below the speed limit at all times. During non-construction periods, non-applicable signs will be covered with black plastic or temporarily removed.

Convenient access to driveways and the work area will be maintained during construction activities. Water and dust abatement measures will be applied by TtFW as necessary to the on-site roads used by haul trucks. TPA-CKY and TtFW crews will work together during loading of trucks for alleviation or prevention of nuisance dust. In addition, as described in Section 3.5.4, TPA-CKY field personnel will be required to cover the waste hauling truck loads, appropriately decontaminate the trucks via dry methods (brushing) and proceed through the gate monitor to be screened for radioactive material before the trucks leave the site.

3.4 TRAFFIC CONTROLS

Traffic controls will be used to provide for the efficient completion of work activities in a safe working environment, while minimizing impact to normal traffic flow. Traffic controls will be required during removal activities in the excavation and stockpile areas to allow for equipment operation and truck loading for off-site transportation. Traffic controls may include, but will not be limited to, the following:

- Traffic flow will be maintained at all times on Spear, Fischer and Galvez Avenues during project construction phases.
- Transportation demand management strategies, such as using carpools or vanpools for construction workers, will be encouraged.
- End dumps and other transportation trucks removing radiologically cleared construction debris from the PCB hot spot site will be scheduled to avoid queuing

- along major streets. Close coordination between the TtFW foreman and the truck dispatcher will be maintained at all times during loading and unloading activities.
- A sufficient area for parking will be provided to all passenger vehicles in the support area and all haul trucks in the exclusion zone.
 - Cones, flags, signs, and other traffic control measures will be used, as needed, to facilitate loading and unloading.

All traffic control activities will conform to the applicable specifications of the *Manual of Traffic Control for Construction and Maintenance Work Zones* [California Department of Transportation (Caltrans), 1996] and will be approved by the DON.

A queuing lane within the fenced portion of Parcel E will be provided to assist the trucks as they turn into the site and to minimize impacts to traffic on the base. In order to prevent congestion of the site access roads during loading and hauling operations, no trucks will be allowed to queue along any public street. On-street parking will be prohibited for all vehicles associated with the construction activities in order to maintain normal access and clear lanes.

Other project-specific measures will be used to minimize the impacts of the proposed construction activities. These measures include the following:

- Proper design geometrics will be applied at access driveways and all internal streets to accommodate trucks and fire apparatuses.
- Trucker certification will be received and signed by truckers (see Attachment 1). This will consist of a brief tailgate presentation and review of this Transportation and Disposal Plan and emergency response procedures. A signed copy of the certification will be kept on site.
- Clear access points for trucks will be maintained at the project entrance to allow for efficient movement of construction-related traffic and expedite the entry and exit of construction vehicles in and out of the site.
- An adequate turning radius will be provided in all areas, including loading areas near the stockpiles.
- Sufficient area will be provided for parking all vehicles on-site during construction, including space for haul trucks.
- Close coordination will be maintained between the DON and all other facility contractors to ensure safety and to minimize impacts to other activities within HPS.

Figure 1-1 shows a parking area for all passenger vehicles and all haul trucks within the fenced portion of Parcel E.

3.5 WASTE TRANSPORTATION AND DISPOSAL

This section describes the disposal methods for the non-radioactive waste materials generated at the PCB hot spot. (Disposal of LLRW and LLMW will be conducted by the Army and is not part of the scope covered by this Transportation and Disposal Plan.)

3.5.1 Truck Decontamination and Tarping

Prior to leaving the site, trucks will be required to pass through a decontamination/gravel pad where TPA-CKY field personnel will remove soil residue from the exterior of the truck, fenders, and tires using dry decontamination practices (i. e. brushing). If dry practices are not sufficient, the soil residue will be removed using a pressure washer. The water used during the cleaning of the trucks will be collected. In addition, TPA-CKY field personnel will securely tarp all waste loads before the truck will be allowed to leave the site. TPA-CKY must provide and use tarps with the vehicles during transport of the wastes to the disposal facility. Tarps must be automatic and/or capable of being deployed over the load from ground level or from an appropriate California Occupational Safety and Health Administration-compliant scaffold system to eliminate the necessity for the drivers to climb atop the vehicle to cover the load. Any vehicle without the required tarping capability will be rejected for failing to satisfy the requirements of this plan.

3.5.2 Waste Transportation

Hazardous wastes sent off site for disposal or recycling will be done so in accordance with the DOT Hazardous Material Transportation regulations of 49 CFR, Parts 171 through 177, and 40 CFR, Part 262, Subpart B, and 22 CCR, Section 66262, which involves packaging, placarding, labeling, and manifesting requirements. Additionally, hazardous wastes will be sent off site for disposal or recycling with appropriate land disposal restriction (LDR) certification notices per 40 CFR, Part 268, and 22 CCR, Section 66268. Personnel having the required DOT training will perform all DOT functions. In addition, all transporter and disposal contractors will be subject to the contractor qualification process.

If material is hazardous, it will be shipped under the appropriate hazard class. All hazardous waste will be transported under DOT hazardous material regulations. Each shipment of a suspected hazardous material will be properly classed using the Hazardous Material Table in 49 CFR, Part 172.101. DOT-trained personnel will make all determinations.

Based on waste characterization conducted and waste profiles developed by TtFW and approved by the disposal facilities, non-hazardous TSCA and/or RCRA waste soil will be transported by TPA-CKY. The transporter will have all appropriate licenses and registrations, including a Department of Toxic Substances Control Hazardous Waste Transporter Registration and an EPA

identification number. In addition, drivers will be licensed and will possess a current bi-annual medical certification. For waste shipped interstate, the transporter will also require a DOT registration number.

TPA-CKY will have a HAZMAT Security Plan in effect, as required by 49 CFR 172.800, and all employees will have to be trained with regards to HAZMAT security. The transporter will be briefed by TtFW personnel prior to leaving the site as to any specific HAZMAT security issues associated with the shipments they are transporting.

Shipping Description – Material that does not exhibit one of the nine DOT hazard classes (for example, explosive, flammable, poison, combustible, and so forth) is not regulated under DOT rules for the transportation of hazardous material. The TtFW Compliance Officer or the DOT Coordinator will confirm this description with TPA-CKY prior to shipment. The applicable DOT shipping description, EPA hazardous waste number, and the California waste code will be selected based on the results of the waste characterization.

- **Marking and Labeling** – The shipping name, hazard class, identification number, technical names, EPA markings and waste code numbers, and consignee/consignor designations must be marked on packages for shipment in accordance with Title 49 CFR, Part 172. This information will be marked on each roll-off bin or container by TPA-CKY, as required, after consultation with the TtFW Compliance Officer or DOT Coordinator.
- **Placarding** – Vehicles will be appropriately placarded in accordance with Title 49 CFR, Part 172.

Manifest Requirements – Hazardous and non-hazardous wastes will be shipped off site using the appropriate hazardous or non-hazardous waste manifest. Manifests will be completed by TPA-CKY for approval by the DON signature before the waste leaves the site. Under no circumstances will TtFW or TPA-CKY personnel sign hazardous waste manifests. Copies of all manifests will be retained by TPA-CKY, who also will provide TtFW with a copy for its project files; original copies are sent with the transporter.

Each manifest will list only the transporter(s) and designated disposal/recycling facility that have been pre-qualified and authorized by the DON. No changes, including additions or subtractions may be made to the transporter(s) or disposal facility on the manifest without direct authorization from the DON in advance of the change. The DON must be immediately contacted regarding any proposed change to the manifest prior to the change occurring.

The manifest must accompany the waste at all times. When waste is transferred from the custody of the transporter to the designated disposal (including treatment and/or recycling) facility, the new party must sign the manifest and take custody of the waste in accordance with all RCRA, California, and DOT requirements.

TPA-CKY must immediately notify the TtFW Technical Lead at the following contact numbers if any discrepancies in a waste shipment pertaining to information provided by TtFW are discovered. Prior to rejection of waste, TPA-CKY must attempt to resolve any discrepancies causing rejection of waste with the TtFW Technical Lead at each of the following contact numbers in the following order:

- Cell phone for Bill Williams, On-site Coordinator and TtFW Project Construction Manager: (513) 617-5197.
- Site office: (415) 671-1990. Ask for Gerard Slattery. If no answer, listen to voicemail and leave a message with a contact phone number.
- Cell phone for Luis Rivero, PCB Hot Spot Project Manager: (619) 302-9651. If no answer, listen to voicemail and leave a message with a contact phone number.
- Office phone for Luis Rivero, PCB Hot Spot Project Manager: (619) 471-3502.

TPA-CKY must permit TtFW reasonable time to respond prior to rejection of waste. Do not leave the waste or turn over custody of the waste to anyone without prior direction and approval from TtFW.

The contractor must ensure that a copy of each manifest is returned to TtFW within 30 days of receipt of the waste at the designated disposal facility. In addition, Certificates of Recycle/Treatment/Disposal must be provided to TtFW within 30 days from receipt of wastes.

LDR (Land Disposal Restriction) Certification – LDR certification will be prepared and will accompany the manifest if applicable. Copies of all LDR certifications will be retained in the TPA-CKY project files with the signed manifest received from the disposal facility. A copy of the LDR will be provided to TtFW.

3.5.3 Radiological Waste Transportation and Disposal

As previously noted, disposal of LLRW and LLMW will be conducted by the Army and is not part of the scope covered by this Transportation and Disposal Plan.

3.5.4 Off-site Disposal

Wastes intended for off-site disposal will be processed according to the final waste classification and approved profile from the intended disposal facility as coordinated by TtFW. Disposal may be a combination of options determined by the hazardous classifications as follows:

- A gate monitor will be used to provide a radiological screening of loaded trucks prior to exiting HPS. The monitor is located along 6th Avenue (Figure 1-1) on the way to the scales from the PCB Hot Spot site, and will be operated by TtFW.
- Soil, PPE, and debris intended for off-site disposal that is classified as a TSCA hazardous, RCRA hazardous or non-RCRA (California) hazardous waste will be transported to a CERCLA Off-site Rule-approved hazardous waste facility for treatment and/or disposal.
- Soil, PPE, and debris intended for off-site disposal that is classified as non-hazardous waste will be transported to a CERCLA Off-site Rule-approved waste facility.
- Cleared vegetative wastes will be disposed of at an off-site green waste recycling and disposal facility.
- Wastewater will be characterized and profiled for proper off-site treatment and/or disposal.
- Scrap metal will be screened for radioactivity and prepared, as survey results dictate, for free-release recycling or processing as segregated radioactive waste.

Bulk waste intended for off-site disposal will be loaded onto trucks for transportation to the appropriate off-site disposal facilities. Loaded trucks will be weighed at an on-site non-certified truck scale, belonging to the Golden Gate Railroad Museum, to ensure compliance with DOT regulations. The truck scale is located at Building 412 (adjacent to Building 401), as illustrated in Figure 1-1. Appropriate placards will be placed on each transport vehicle, as necessary. In addition, a hazardous waste manifest or non-hazardous waste manifest, as appropriate, will be filled out for each load of bulk and non-bulk waste and submitted to the DON to sign as generator. Original copies of the manifest will be provided to the transporter for shipment.

Waste will be disposed only at an appropriate waste disposal facility approved by the DON and permitted for the disposal of the particular type of waste generated. The facilities listed in Table 2-1 may be considered for waste disposal from this project.

All trucks exiting HPS will be required to pass through a gate monitor for final radiological screening. The gate monitor will be located adjacent to the truck scales as shown in Figure 1-1.

3.6 WASTE MINIMIZATION

To minimize the volume of waste streams generated during the project, the following general guidelines will be followed:

- Waste material will not be contaminated unnecessarily.
- Work will be planned ahead.
- Material may be stored in large containers, but the smallest reasonable container will be used to transport the material to the location where it is needed.

- Cleaning and extra sampling supplies will be maintained outside any potentially contaminated area to keep them clean and to minimize additional waste generation.
- Mixing of detergents or decontamination solutions will be performed outside potentially contaminated areas.
- Drop cloths or other absorbent material will be used to contain small spills or leaks.
- Contaminated material will not be placed with clean material.
- Wooden pallets inside the exclusion zone will be covered with plastic.
- Material and equipment will be decontaminated and reused when practical.
- Volume reduction techniques will be used when practicable.
- Waste containers will be verified to ensure that they are solidly packed to minimize the number of containers.
- Only the size waste containers adequate to contain the volume of waste generated will be used.

Less hazardous substances will be used whenever possible (only the volume of standard solutions needed for testing will be brought, and minimal amounts of decontamination water and solvent rinses will be used).

4.0 RELEASE PREVENTION, RESPONSE, AND REPORTING

4.1 SPILL PREVENTION

The primary activities that may result in a spill include vehicle fueling and management of decontamination waste. Spill prevention practices for these activities are as follows:

- **Fueling** – Trucks will be fueled and serviced prior to moving onto the site. Any on-site fueling of equipment will be conducted within a designated and controlled area. No bulk quantities of fuel will be stored on site.
- **Wastewater** – Wastewater will be stored in temporary tanks or 55-gallon drums within a secondary containment area. Therefore, any spills from the containers or tanks will be contained and will not be released to the surrounding areas.

4.2 SPILL RESPONSE

In the event of a release of hazardous materials into the environment, TPA-CKY will contain or control the release or evacuate the area if the spill is significant or represents an immediate health threat. Absorbent pads, shovels, and 55-gallon drums will be kept on site to address the possibility of spills. Spills, leaks and fires at HPS must be reported to the RPM, ROICC, CSO and TtFW.

In the event of a release or spill of hazardous materials or waste during transport, TPA-CKY will be responsible for arranging emergency response. A 24-hour emergency response organization or company shall be contracted in advance and prepared to respond to incidents that may occur during transport of site wastes.

4.3 SPILL/RELEASE REPORTING

The steps below outline the chain of communications that will be followed if a significant spill of any hazardous substance occurs on Navy property at HPS. A significant spill will be considered any spill over the reportable quantity, as determinable by federal and/or state regulations, as well as any spill below the reportable quantity that is not properly contained and released to the environment. If a spill occurs off-site, TPA-CKY is to coordinate directly with the Navy.

1. Site personnel involved in the spill will immediately contact the TtFW Spill/Release On-Site Coordinator, Construction Manager, or SHSS, who will notify the PCB Hot Spot Project Manager. At least one of the following two individuals will be on-site during all remedial activities:

TtFW SHSS:

Richard Quinn

TtFW On-site Coordinator and
Construction Manager:

Bill Williams

The TtFW SHSS or Construction Manager will contact the Remedial Project Manager (RPM), ROICC, and CSO identified below:

RPM:	Mark Walden (619) 532-0931
ROICC:	Peter Stroganoff (510) 749-5941
CSO:	Mike Mentink (415) 743-4729

2. If a release of a waste or hazardous substance, regardless of quantity, could threaten human health or the environment outside the facility, the PCB Hot Spot Project Manager will verify that the National Response Center [(800) 424-8802] and the local Emergency Response Coordinator (Fire Department) have been notified by the DON. Releases will be reported, and written follow-up emergency notices will be submitted under the SARA, Title II requirements.
3. In concert with the above actions, the following persons will be contacted by the PCB Hot Spot Project Manager or Construction Manager:

TtFW Regulatory Compliance Manager:	Keli McKay-Means Office: (360) 598-8108 Cell: (425) 785-4389
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TtFW Certified Industrial Hygienist:	Roger Margotto Office: (619) 471-3503 Cell: (949) 306-2517
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4.4 PROJECT AND PERSONNEL REQUIREMENTS

TPA-CKY personnel training requirements and inspection programs applicable to the PCB hot spot TCRA are described below.

4.4.1 Personnel Training/Certification Requirements

- Site personnel, including TPA-CKY personnel involved in waste loading operations, must have Occupational Safety and Health Administration (OSHA) 40-hour Hazardous Waste Operations and Emergency Response and annual 8-hour refresher training, as well as RCRA waste management training. Truck drivers are exempt from this training requirement.

- Waste hauler drivers must have a current, valid California driver's license and HAZMAT Endorsement.
- Activity Hazard Analysis (AHA) training for the specific task.
- Field personnel, who engage in on-site activities, will be trained in accordance with the TPA-CKY Health and Safety Plan. TtFW will make its Site-specific Health and Safety Plan (SHSP) (TtFW, 2005) available to TPA-CKY. TPA-CKY's Health and Safety Plan must be at least as stringent as the requirements outlined in the TtFW SHSP.
- TPA-CKY site personnel performing DOT functions, such as selecting, packaging, marking, labeling, preparing shipping papers for, and loading non-radiological wastes, must be trained in accordance with the requirements of HM-126F. Subcontractors performing DOT functions must supply proof of training.
- TPA-CKY project personnel performing non-radiological waste management activities must be certified in accordance with Title 40 CFR, Parts 262.11 through 265.16.
- TPA-CKY employees must be trained on the HAZMAT Security Plan.
- TPA-CKY will verify subcontractor training records prior to project activities.

5.0 REFERENCES

- California Department of Transportation (Caltrans). 1996. *Manual of Traffic Control for Construction and Maintenance Work Zones*.
- TtFW. 2005. *Draft Site-specific Health and Safety Plan, Hunters Point Shipyard, San Francisco, California*. March.

TABLES

TABLE 2-1**POTENTIAL OFF-SITE DISPOSAL FACILITY OPTIONS**

Wastestream	Disposal Facility	Facility Location
TSCA (PCB contaminated) and/or Non-RCRA hazardous Soil, PPE, and liners	Chemical Waste Management, Kettleman Hills Landfill	Kettleman City, CA
RCRA hazardous and TSCA contaminated soil, PPE, and liners	U.S. Ecology Landfill (if requires treatment for UHCs)	Beatty, NV
	Chemical Waste Management, Kettleman Hills Landfill (if no treatment required for UHCs)	Kettleman City, CA
Non-hazardous Wastewater	Altamont Landfill	Livermore, CA
	DKE Environmental	Vernon, CA
Hazardous Wastewater	DKE Environmental	Vernon, CA
	Onyx	Azusa, CA
Non-contaminated Debris	Altamont Landfill	Livermore, CA
	Forward Landfill	Stockton, CA

Notes:

PCB – polychlorinated biphenyl

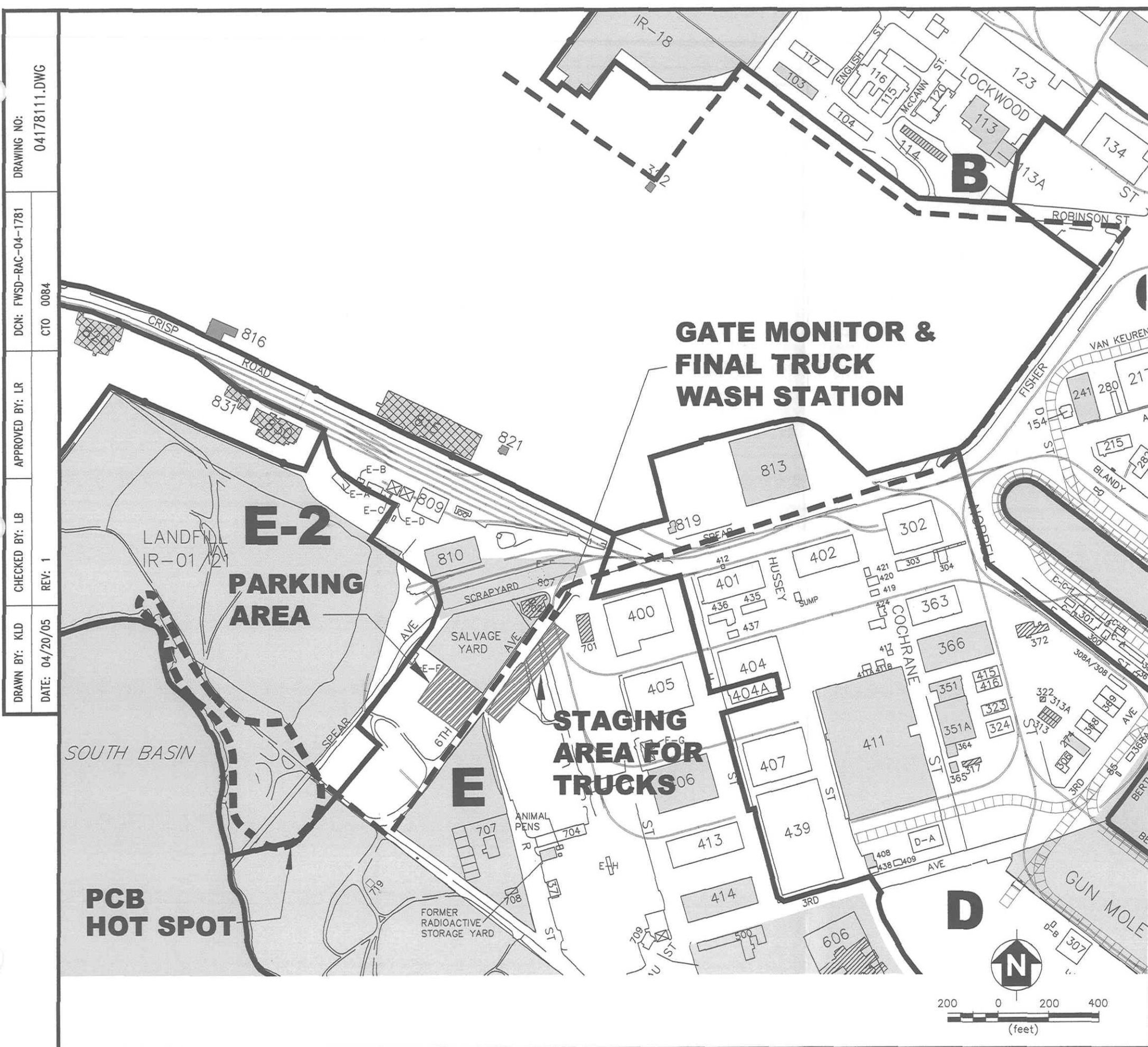
PPE – personal protective equipment

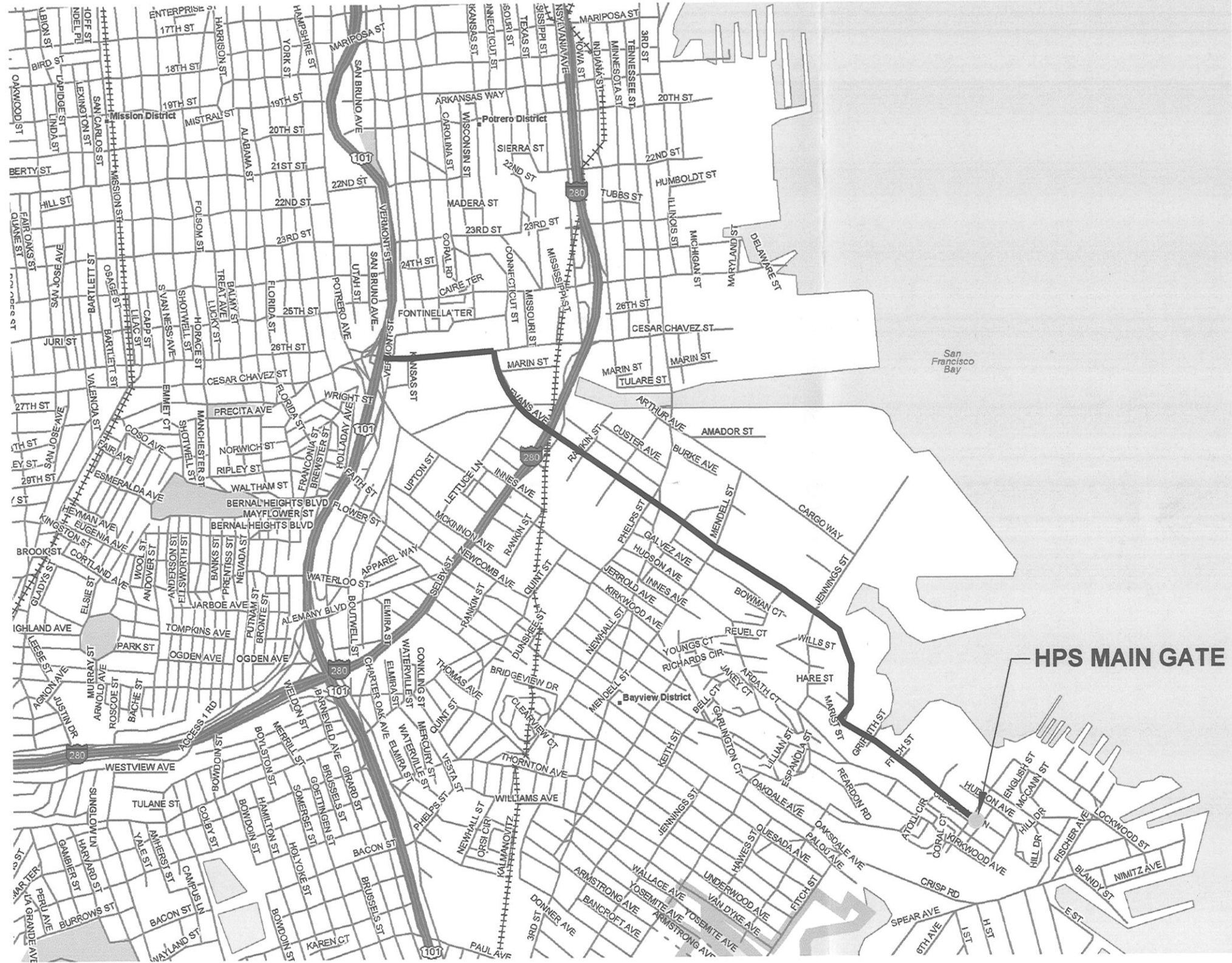
RCRA – Resource Conservation and Recovery Act

TSCA – Toxic Substances Control Act

UHC – underlying hazardous constituent

FIGURES





LEGEND

— TRUCK ROUTE TO U.S. 101

DIRECTIONS:

DIRECTIONS:

THE ONLY ROUTE ALLOWED TO U.S. 101
 IS AS FOLLOWS:

- AS YOU LEAVE HPS MAIN GATE TURN RIGHT ON INNES AVENUE
- INNES AVENUE EVENTUALLY TURNS TO EVANS AVENUE FOLLOW EVANS AVENUE TO CESAR CHAVEZ STREET
- TURN LEFT AND FOLLOW CESAR CHAVEZ STREET TO U.S. 101 ON-RAMP



NOT TO SCALE

FIGURE 2-1
 OFF-SITE TRAFFIC ROUTE MAP

HUNTERS POINT NAVAL SHIPYARD-SAN FRANCISCO-CALIF.



TETRA TECH FW, INC.

ATTACHMENT 1

TRUCKERS' CERTIFICATION

PARCEL E PCB HOT SPOT TCRA OFF-SITE DISPOSAL

TRUCKERS' CERTIFICATION

PCB HOT SPOT TCRA OFF-SITE DISPOSAL

Hunters Point Shipyard (HPS) is a government installation, and work performed on site must be done in strict adherence to facility policies and procedures. Compliance with this certification will help truckers avoid problems that could result in their immediate dismissal from the project. Projects at HPS are under a great deal of scrutiny by the Department of the Navy (DON), the City of San Francisco, the local community, and a large number of state and federal agencies, so assume that if you make a mistake, someone will see it and report it. When in doubt, ASK QUESTIONS.

Dust Control

Dust control is a top priority on this job. No visible dust, created by traffic or earthmoving activities, will be allowed. Drive slowly on all roads to avoid kicking up any dust. Water and dust abatement measures will be applied by TtFW as necessary to the on-site roads used by haul trucks. TPA-CKY and TtFW crews will work together during truck loading to prevent or reduce dust. If any dust is raised, notify the On-site Coordinator and TtFW Project Construction Manager Bill Williams (office, 415-671-1990 or mobile, 513-617-5197), or the TPA-CKY supervisor personnel immediately, Mark Hallock (916-804-9954).

On-site Truck Traffic

While on the base, drive defensively. Hundreds of tenants and visitors drive through the shipyard every day, and they are not used to construction traffic. Expect other vehicles to run stop signs or make unsignaled stops or turns.

Truck traffic will not be allowed on site before 0730 hours or after 1700 hours. Absolutely no trucks can park, idle, queue, or stage off base or along public base roads. Trucks can only be parked, idled, queued, or staged in the designated area inside the Parcel E fence (Figure 1). These are DON rules and no exceptions will be allowed. Close coordination with the TPA-CKY dispatcher will be required.

Safety Equipment

Safety is taken very seriously on this project, and appearances count. Anyone who steps out of a vehicle must be wearing their safety equipment, which includes (at a minimum) a hard hat, steel-toed boots, safety glasses, and a safety vest with reflective stripes. Long pants and a shirt with sleeves (short sleeves are OK) are required. Double-check that you have your safety equipment on before exiting the cab of your vehicle, and do so only as directed by an on-site representative who will direct you to a safe area.

Loading

For safety, truck drivers are required to restrict their work to stockpile areas and other areas identified as radiologically non-impacted (see Figure 1). Under no circumstances are drivers allowed to enter radiologically impacted areas. Drivers must stand clear of their trucks while they are being loaded. Do not climb up on the trailer to watch while the truck is being loaded. Waiting in the cab while loading is only allowed if the cab is equipped with a Falling Object Protection System (FOPS) or a cab protector to make the cab a safe environment during loading procedures. These rules are for the driver's safety.

After loading, trucks must be cleaned and tarped. Soil residue from the exterior of the truck, fenders, and tires must be removed. Dry decontamination practices (i. e. brushing) will primarily be used, however; if dry practices are not sufficient, the soil residue will be removed using a pressure washer. Either self-tarping trucks will be used or tarping racks that meet California Occupational Safety and Health Administration (Cal-OSHA) specifications, with stairs and handrails, will be provided by TPA-CKY. Trucks leaving the site must be tarped and clean – no mud or loose dirt can be visible on trucks entering the paved base roads or leaving HPS. All trucks exiting HPS will be required to pass through a gate monitor for final radiological screening. The gate monitor will be located adjacent to the truck scales as shown in Figure 1.

Drivers will be notified by TPA-CKY in coordination with Tetra Tech FW, Inc. (TtFW) with appropriate placarding requirements for their load. If hazardous waste contaminated with polychlorinated biphenyls (PCBs) is being hauled, proper placards will be required on all four sides of trucks carrying waste. In addition, two PCB stickers must be attached to each side of the trailer. Placards required for PCB waste will be Class 9 with the ID Number 3077. These placards and PCB stickers are to be removed after dumping your load at the landfill.

Materials leaving the site will have been pre-characterized and approved for acceptance at the designated disposal facility. An appropriate hazardous or non-hazardous waste manifest, signed by the DON as the generator, will be provided for each load and will require signature by the driver prior to leaving the site.

It is the driver's responsibility to make sure that they are at a legal weight before entering public roads.

Transit to the Disposal Facility

Before leaving the base, double-check that you are ready to leave:

- The truck is clean and in good operating condition,
- The load is tarped,
- Proper placards and PCB stickers are attached, if applicable,
- A proper waste manifest is signed, and
- The appropriate copies of the manifest are returned to the designated on-site transportation coordinator.

An on-site truck scale, belonging to the Golden Gate Railroad Museum, will be made available to TPA-CKY throughout the duration of this project. The truck scale is located at Building 412 (adjacent to Building 401), as illustrated in Figure 1. Although the scale is not certified, it will be used by all trucks leaving the site to ensure that Department of Transportation (DOT) weight restrictions are not exceeded. It will be the responsibility of TPA-CKY to document truck weights prior to trucks exiting from HPS.

Follow the marked truck route to the front gate, and enter public roads to US 101 (and the Bay Bridge). Outside the main gate, there is only one approved route to US 101. The ONLY route allowed is to leave the HPS main gate and turn right on Innes Avenue, bear right at the fenced vacant lot as Innes Avenue becomes Hunters Point Boulevard (which again changes to Evans Avenue at the PG&E power plant), follow Evans Avenue across Third Street to Cesar Chavez, and turn left on and follow Cesar Chavez to the US 101 on-ramp (Figure 2). Deviations from this route will be considered in violation of the Project Work Plan. Due to San Francisco Municipal Light Rail construction, the City of San Francisco has prohibited truck traffic along Third Street. Project trucks traveling along Third Street will be considered in violation and are subject to fines and traffic citations.

If you need directions to the disposal facility, the landfill's phone number will be on the manifest.

Once you leave the site, the manifest must accompany the waste at all times. When waste is transferred from the custody of the transporter to the designated disposal (including treatment and/or recycling) facility, the new party must sign the manifest and take custody of the waste in accordance with all Resource Conservation and Recovery Act (RCRA), California, and DOT requirements.

Each manifest will list only the transporter(s) and designated disposal/recycling facility that have been pre-qualified and authorized by TPA-CKY and the DON. No changes, including additions or subtractions may be made to the transporter(s) or disposal facility on the manifest without direct authorization from TPA-CKY in advance of the change. TPA-CKY must be immediately contacted regarding any proposed change to the manifest prior to the change occurring, and TPA-CKY will, in turn, be responsible for contacting the DON.

At the Landfill

Follow the instructions you receive at the landfill to dump the load. Ensure that the waste facility signs the waste manifest accepting the load. Before leaving the facility, be sure to remove the waste placards and PCB stickers, if applied, from the truck.

In Case of Accident or Spill

If you are involved in an accident or spill some contaminated material, contact your dispatcher IMMEDIATELY. A hazardous waste spill requires immediate response and requires that a large number of people and government agencies be contacted and may require a specialized cleanup crew to be sent out. Delays will make this process more difficult. A 24-hour emergency response

number will be indicated on the manifest, but this number only provides information to first responders. The dispatcher for the truck driver must always be contacted.

Certification

I have read and understood the Transportation and Disposal Plan, site requirements, approved traffic routes, and procedures for this project at HPS. I acknowledge that I am properly licensed, insured, and medically authorized to transport the waste, which I understand may include RCRA hazardous waste and PCB-contaminated waste. I also certify that I am authorized to transport waste on behalf of TPA-CKY and that my company has current licenses, permits, Hazmat security plans and registrations for hauling the waste in question to the designated disposal facility, which I acknowledge may be out-of-state.

_____ Driver Name

_____ Driver Signature

_____ Company

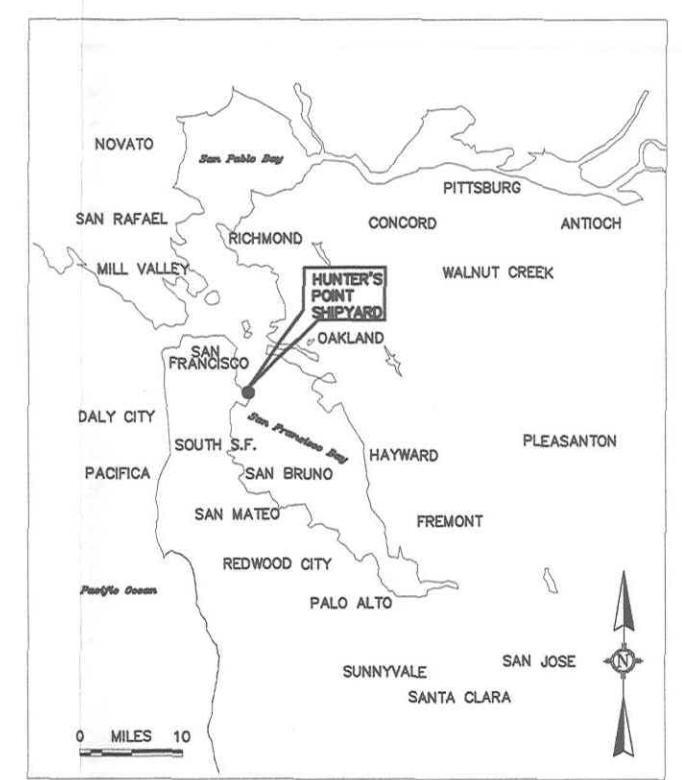
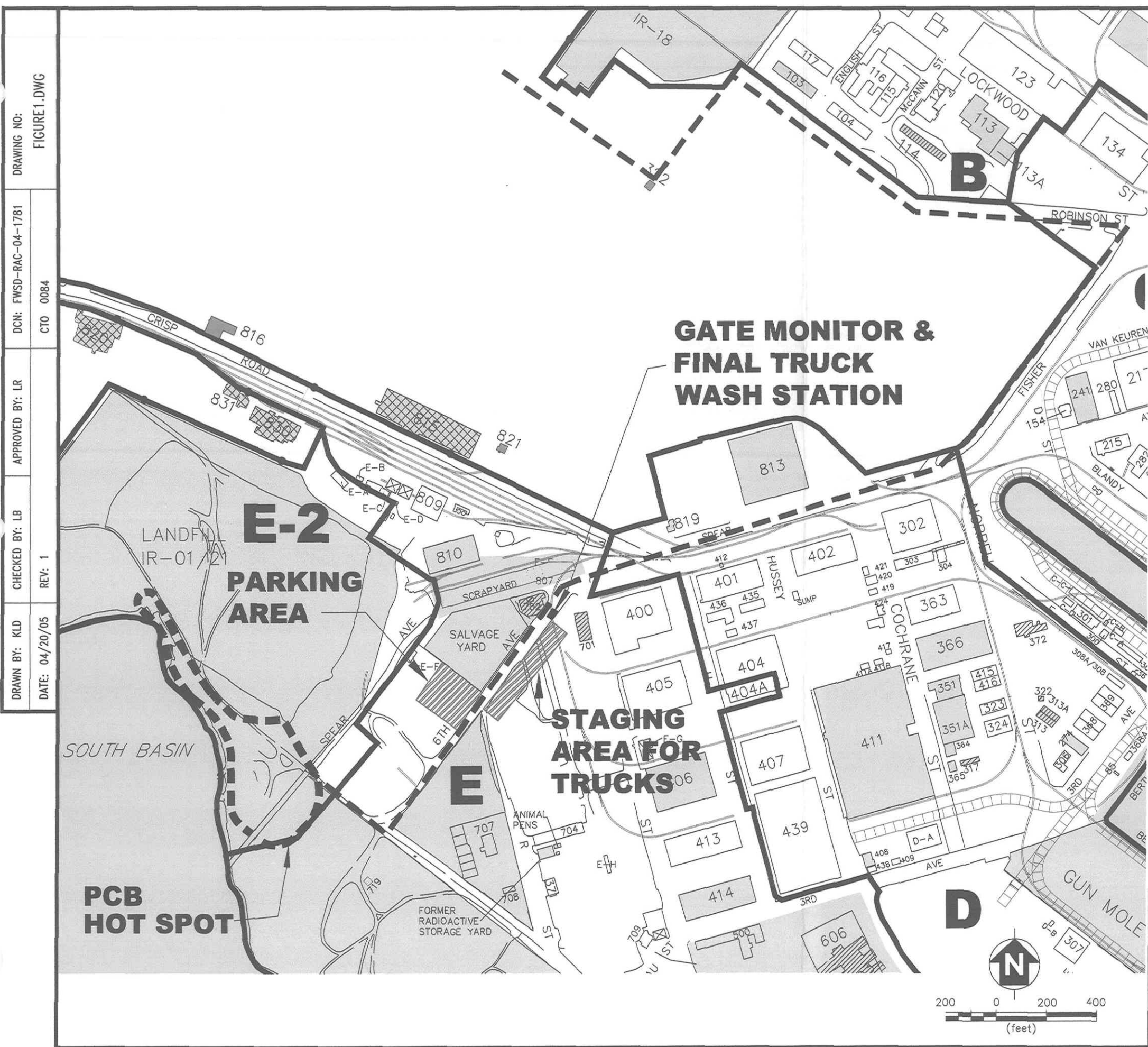
_____ Date

_____ Date

ATTACHMENTS

Figure 1 On-site Traffic Route Map

Figure 2 Off-site Traffic Route Map



- LEGEND**
- TRAFFIC ROUTES
 - PCB HOT SPOT EXCAVATION BOUNDARY
 - PARCEL BOUNDARY
 - IMPACTED BUILDINGS OR SITES
 - DEMOLISHED IMPACTED BUILDINGS/STRUCTURES
 - DEMOLISHED BUILDINGS/STRUCTURES
 - IMPACTED SITES THAT HAVE OBTAINED REGULATORY RELEASE
 - IMPACTED FUDS SITES

NOTE
IMPACTED SITES ARE SITES THAT HAVE KNOWN RADIOLOGICAL CONTAMINATION OR WHERE SITE HISTORY INDICATES THAT RADIOLOGICAL CONTAMINATION MAY BE PRESENT.

FIGURE 1
PCB HOT SPOT-TRUCK TRAFFIC ROUTE MAP

HUNTERS POINT NAVAL SHIPYARD-SAN FRANCISCO-CALIF.



DRAWING NO: **FIGURE 1.DWG**

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CTO 0084

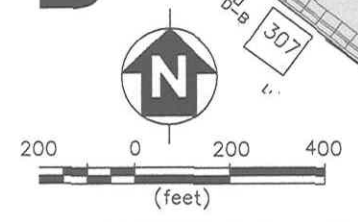
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CHECKED BY: LB

REV: 1

DRAWN BY: KLD

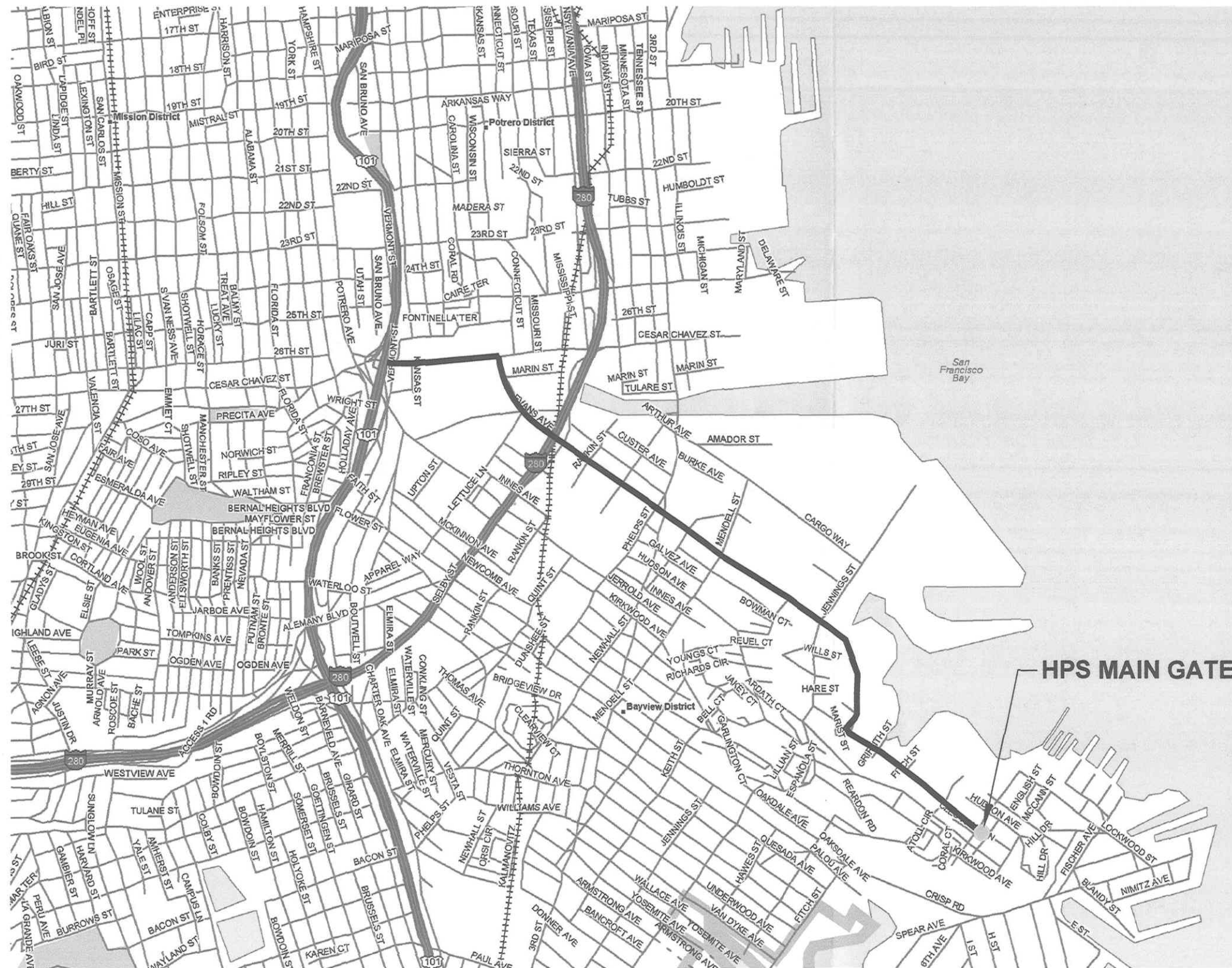
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CTO: 0084
APPROVED BY: LR
CHECKED BY: LB
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DATE: 04/20/05
DRAWN BY: KLD

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PLOT/UPDATE: APR 20 2005 09:01:59



LEGEND

— TRUCK ROUTE TO U.S. 101

DIRECTIONS:

DIRECTIONS:

THE ONLY ROUTE ALLOWED TO U.S. 101
IS AS FOLLOWS:

- AS YOU LEAVE HPS MAIN GATE TURN RIGHT ON INNES AVENUE
- INNES AVENUE EVENTUALLY TURNS TO EVANS AVENUE FOLLOW EVANS AVENUE TO CESAR CHAVEZ STREET
- TURN LEFT AND FOLLOW CESAR CHAVEZ STREET TO U.S. 101 ON-RAMP



NOT TO SCALE

FIGURE 2
OFF-SITE TRAFFIC ROUTE MAP

HUNTERS POINT NAVAL SHIPYARD—SAN FRANCISCO—CALIF.



TETRA TECH FW, INC.